

Michigan Communication Directors Association (MCDA)

Next Generation 911 in Michigan

- **What is Next Generation 911?**

- Next Generation 911 (NG911) is a nationwide initiative to replace the outdated legacy analog 911 network with a modern technology using digital, Internet Protocol (IP) architecture. This IP network is fast, flexible, resilient, and scalable which allows 911 to keep up with communication technologies used by the public.
- Unlike the current analog backbone, it is a private, public safety grade IP network of networks meeting stringent, nationally developed public safety standards and referred to as an Emergency Services IP Network (ESInet).

- **Why do we need to replace the legacy 911 network?**

- The legacy copper 911 network utilizes technology from the 1960's and 1980's and was designed for the land line telephones that existed at that time. It's basic design and lack of expandability has created limitations that cannot be overcome without a transition to an IP network.
- It is only capable of sending a voice call with very limited data, such as the caller's address and telephone number, or the address and sector of a wireless tower. The current legacy system has been "tricked" into processing wireless and Voice over Internet Protocol (VoIP) calls over time, but the method of routing calls to the appropriate Public Safety Answering Point (PSAP) still utilizes a tabular list of telephone numbers from the days when every home and business had a land line and an associated address or, in the case of wireless calls, utilizes a false or "pseudo" telephone number associated with an address for the sector of the cellular tower. Wireless call routing can be very inaccurate.
- The legacy network is susceptible to being compromised, and 911 outages to occur, due to its "single point of failure" design.

- **What benefits will NG 911 provide?**

- NG 911 will provide far more bandwidth to allow increased critical data to be transmitted along with the voice call. For example, the 911 caller will be able to send video from a crime scene or accident, or photos of missing children.
- NG911 supports a fully integrated solution for Text to 911, critical for the speech and hearing impaired, those unable to make a voice call due to limited cellular connectivity or sensitive situations such as domestic violence and during the exercise of the "hide" option during an active shooter situation.
- NG911 will provide greater redundancy than the legacy network, and afford PSAPs more flexibility in transferring and rerouting calls during emergency, overflow events, ultimately creating "virtual" PSAP consolidation.
- Most importantly, however, wireless calls will be routed to the PSAP based upon the latitude and longitude of the caller's handset, not the sector of the tower processing the call (which may cover multiple communities or counties). This will provide much greater accuracy in routing wireless calls to the correct PSAP initially, reducing the time spent in transferring calls today.

- *See back side of this sheet for updated Michigan NG911 Projects*

IP Deployment Timeframes

Based on annual reporting data, 26 counties are currently receiving 911 calls via IP lines provided by Peninsula Fiber Network (PFN). An additional 33 counties have agreements in place with PFN for future deployments.

-  Deployed in 2014 (15 counties)
-  Deployed in 2016 (10 counties)
-  Deployed in 2017 (1 county)
-  Plan to deploy within 12 months (4 counties)
-  Agreement signed, unknown deployment (29 counties)



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